

**IRO NOTICE OF DECISION – WC**



**Claims Eval**

Notice of Independent Review Decision

October 25, 2013

IRO CASE #:

**DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE:**

Removal external fixator/possible percutaneous tendoachilles lengthening

**A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION:**

American Board of Orthopaedic Surgery

**REVIEW OUTCOME:**

Upon independent review, the reviewer finds that the previous adverse determination/adverse determinations should be:

- Upheld (Agree)
- Overturned (Disagree)
- Partially Overturned (Agree in part/Disagree in part)

Provide a description of the review outcome that clearly states whether medical necessity exists for each of the health care services in dispute.

**INFORMATION PROVIDED TO THE IRO FOR REVIEW:**

- 8-9-12 office visit
- 8-16-12 office visit
- 8-22-12 office visit
- 8-30-12 office visit
- 9-13-12 office visit
- 11-12-12 hospital admission
- 11-13-12 x-rays of the left tibia and fibula
- 11-13-12 x-rays of the left ankle
- 12-13-12 office visit
- 1-2-13 office visit
- 2-26-13 operative procedure
- 3-6-13 office visit
- 3-14-13 office visit
- 4-23-13 office visit
- 6-5-13 office visit
- 6-5-13, office visit
- Request for CT scan of the left distal tibia w/o contrast on 7-11-13
- 7-18-13 CT of the left lower extremity
- 8-1-13 office visit
- 8-8-13 notification of reconsideration adverse determination
- 9-10-13 notification of reconsideration adverse determination
- 10-1-13 office visit
- 10-7-13 letter
- Request for a review by an Independent Review Organization on 10-8-13
- Notice to Utilization Review Agent of Assignment of Independent Review Organization on 10-11-13
- Notice to Claims Eval of case assignment on 10-11-13
- Notice of Assignment of Independent Review Organization on 10-11-13

**PATIENT CLINICAL HISTORY [SUMMARY]:**

8-9-12 the claimant is 6 days status post surgery. He is non-weight bearing. He takes Norco and Aspirin. Plan: Weight bearing restriction 20 lb. RTC 1 week.

8-16-12 the claimant is 1 week status post revision of ex-fix system, left leg, debridement of left leg wound, open treatment of left tibial fracture with internal fixation of tibia only, split thickness skin graft left leg. He is non-weight bearing and uses a wheelchair. Sutures no yet ready to be removed. Plan: Foot massages. Xerofoam to graft. 20 lb. weight bearing. Shower chair RX given.

8-22-12 the claimant is partial weight bearing and uses crutches and a wheelchair. Plan: Okay to wash foot. Hydrocodone and Tramadol given. Weight bearing restriction 20 lb. RTC 1 week.

8-30-12 the claimant is now 3 weeks status post revision of ex-fix system, left leg, debridement of left leg wound, open treatment of left tibial fracture with internal fixation and split thickness skin graft, left leg. He is non-weight bearing and uses crutches/wheelchair. No issues at this time. Plan: Xerofoam dressings changes every other day. Prescription give for home health, dressing changes and supplies. RTC 2 weeks with x-rays.

9-13-12 the claimant is 1 month, 1 week status post debridement of left leg wounds. He has some stiffness. He rates his pain a 2/10 and gets to a 6/10. He takes Tramadol for pain. Procedure: Debridement of eschar. Plan: Bone stimulator, apply wet to dry dressing. Refer for skin grafts. RTC 4 weeks with x-rays.

11-12-12 the claimant was admitted for open wound, left lower extremity, complicated, maggot wound infestation, and history of lower extremity fracture with external fixator in place. He was involved in a work related accident on xx/xx/xx. Upon evaluation in the ER, the claimant was noted to have several areas of non-viable tissue built up over his skin graft sites with active maggot infestation. He also has a tracking pin site to the anterior distal most pin with numerous maggots within this wound tract. He complains of intermittent swelling to the left lower extremity. Exam shows the left lower extremity with an Ilizarov frame in place with numerous pin sites. There is a lateral fasciotomy wound with a significant amount of necrotic debris and dry, crusting with dead skin and obvious white maggots, 1/4-inch long, working their way through the tissue. There is an anterior skin graft over the dorsal ankle joint. Also, with similar appearance of the wound, there is distal anterior pin site with significant amount of maggot activity within the pin tract. There is also a medial wound with skin graft. Woody edema throughout and limited movement of the toes. Impression: A male with partially-failed split-thickness skin graft and now maggot infestation to the left lower extremity and external fixator pin sites. Plan: Performed a bedside debridement, removing all visible maggots, and debriding away all non-viable tissue sharply with scissors. The majority of the skin graft is actually taken with an 80% take throughout the visible wound beds. There are superficial areas that needed re-epithelialization scattered amongst the skin graft sites. The only area of concern is the anterior pin site with a big tunneling sinus. X-rays of the left ankle and tib-fib region are pending. Cultures are pending. Start Levaquin and Vancomycin and Dakin solution to the pin sites. Infections disease consultation is pending and likely an MRI of the lower extremity for evaluation of osteomyelitis.

11-13-12 X-rays of the left tibia and fibula interpreted, showed comminuted distal tibia and fibular shaft fractures without change in alignment or bridging callus.

11-13-12 X-rays of the left ankle interpreted, showed stable alignment of the distal tibia and fibular comminuted fractures without visible callous formation.

12-13-12 the claimant wants a new shoe for ex-fix. He is 4 months, 1 week status post ORIF left distal tibia/skin graft left leg. He is in a wheelchair. He rates his pain a 2/10. Exam shows left ankle ROM is 0 of dorsiflexion. Mild swelling. X-rays show an aligned tibia, tibial non-union. No signs of healing. Impression: Clinically, not doing as well as expected. No progress in bone healing despite bone stimulator. Plan: Partial weight bearing, 50%. Continue bone stimulator. Planned autograft. HEP. No work yet. RTC 2-3 weeks.

1-2-13 the claimant presents to discuss treatment plan. He rates his pain a 2/10. He is in a wheelchair. Exam shows left ankle ROM is 2 dorsiflexion to 25 plantar flexion. Some peri-incisional numbness. X-rays show no progress in healing tibia at all, well aligned. Plan: Repair of tibial non-union with autograft.

2-26-13 preoperative diagnosis: Previous trauma left leg. Left tibial shaft non-union. Altered surgical field left leg. Procedure: Repair of left tibial non-union with autograft.

3-6-13 the claimant is 1 week status post repair of left tibial non-union with autograft. He takes Hydrocodone for pain and Levaquin. Plan: RTC 1 weeks. 20 lb. weight bearing limit.

3-14-13 the claimant is 2 weeks status post repair of left tibial non-union with autograft. He is partial weight bearing, 20 lb. limit. He uses crutches and wheelchair. Sutures removed and Steri-Strips applied. Plan: EX-fix tightness as needed. He may shower. Continue partial weight bearing. RTC 4-5 weeks with left ankle x-rays.

4-23-13 the claimant has a chief complaint of "top right pin keeps bleeding, really bad bottom left pin bleeds". He uses crutches full time. He rates his pain a 3/10. Plan: Partial weight bearing 20 pound limit. Silver nitrate to pin site. HEP. Okay for sedentary work. RTC 6 weeks with 4 views of the ankle.

6-5-13 the claimant has a chief complaint of "tired, but everything is good". He uses crutches. He rates his pain a 1/10 and gets to 4/10. Exam shows left ankle ROM is pretty good. Mild and chronic swelling. Impression: Clinically, doing well as expected. Plan: Continue full weight bearing. CT in 4 weeks. Okay for sedentary work only. RTC 4 weeks.

6-5-13 the claimant is just tired but everything is good. He uses crutches. Impression: Clinically, doing as well as expected. Plan: Weight bearing. Full WB. CT in 4 weeks. HEP. RTC 4 weeks.

Request for CT scan of the left distal tibia w/o contrast on 7-11-13.

7-18-13 CT of the left lower extremity interpreted showed limited due to streak artifact from external fixation hardware. Hardware placement. Comminuted distal tibial fracture: there is some minimal bridging callus along the posterior and medial margin of the tibial fracture, but the central and lateral margins of the fracture

demonstrate no significant bridging callus. There are comminuted fragments along the superior and lateral margin of the fracture. There is some heterotopic bone posteriorly and laterally. No discrete evidence of hardware complication. Healing distal fibular fracture. Disuse demineralization.

8-1-13 the claimant is 5 months from last surgery. He rates his pain a 1/10 and 4/10 at worst. Plan: Weight bearing. Continue full WB. 2/6 of struts disassembled. HEP. Surgery for removal of external fixator, possible percutaneous tendoachilles lengthening. Not working.

8-8-13 notes that based on the clinical information submitted for this review and using the evidence based, peer reviewed guidelines, the request for appeal removal external fixator/possible percutaneous tendoachilles lengthening is non-certified. Physical examination on that visit showed mild and chronic swelling with good motion. There was scant tenderness. X-rays were done which showed fracture was aligned and healing. The recent medical record dated 8/1/2013 indicates that the patient continues to experience left leg and ankle pain. Physical examination revealed limited ankle range of motion with mild swelling. The pin sites are unremarkable. X-rays of the left tibia showed an aligned and progressively healing tibial fracture. While removal of an external fixator may be considered, recent x-rays showed no evidence of significant amount of callus formation or a completely healed fracture to warrant the hardware removal. There is also a request for a percutaneous Achilles tendon lengthening. However, the requested removal of hardware must be duly authorized as deeming appropriate and necessary in which the medical records submitted failed to support this yet. Also, the post-hardware removal ankle range of motion measurements are not yet documented including the response to post-operative physical therapy to warrant a tendon lengthening procedure. In consideration of the foregoing issues and the referenced evidence-based practice guidelines, the medical necessity of the requested surgery has not been established.

9-10-13 notes that based on the clinical information submitted for this review and using the evidence based, peer reviewed guidelines, the request for appeal removal external fixator/possible percutaneous tendoachilles lengthening is non-certified. The patient is reported to have undergone x-rays on that date and showed an aligned, progressively healed tibial fracture. Official Disability Guidelines do not recommend the routine removal of hardware in fracture fixation. However, as the patient has an external fixator device, the removal is indicated after the fracture has healed in order to allow the patient to attend physical therapy and regain joint motion. As such, the requested fracture external fixator removal would be indicated; however, current x-rays do not report a completely healed fracture. The removal of the external fixator at this time would be premature. The Official Disability Guidelines do not address the request for Achilles tendon lengthening except for in the cases of adult-acquired flatfoot and in cases of equinus contracture. As there is no documentation at this time of post-operative range of motion of the ankle and no reports of an equinus contracture of the foot, the request for an Achilles tendon lengthening does not meet guideline recommendations. Based on the above, the

requested appeal for removal of external fixator/possible percutaneous tendoachilles lengthening is non-certified.

10-1-13 the claimant is a man with a non-union left tibia from a leg being crushed. He is 7 months 1 week from last surgery on 2-26-13. He has a chief complaint of "outer ring on ex-fix is rubbing". He rates his pain a 2/10. Exam shows left ankle ROM is -2 to -20 degrees. Some peri-incisional numbness. Moderate chronic swelling. Impression: Left distal tibia and fibula fractures. External fixator left leg. Equinus contracture left ankle. Plan: Surgery for removal of external fixator and tendoachilles lengthening. Continue full WB. HEP. Tylenol. Not working.

10-7-13 RN, notes the new x-ray done on 10-1-13 shows the fracture is healed and addresses the ROM of the ankle and the equinus contracture.

Request for a review by an Independent Review Organization on 10-8-13.

Notice to Utilization Review Agent of Assignment of Independent Review Organization on 10-11-13.

Notice to Claims Eval of Case Assignment on 10-11-13.

Notice of Assignment of Independent Review Organization on 10-11-13.

#### **ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS, AND CONCLUSIONS USED TO SUPPORT THE DECISION:**

Based on the records provided, the claimant had delayed/non-union of tibia fracture with wound problems. X-rays showed slight healing, but not definite healing of non-union. Recent report by nurse noted that fracture was healed, but I was unable to find relevant information as to the healing of the non-union in the provided documentation. The treating doctor also reports equinus contracture without a description about the severity of these findings. Although the fixator will need to be removed at some point in time after adequate bone healing, without a clear description from the treating doctor regarding the x-ray findings, it does not appear medically necessary at this time. Therefore, the removal external fixator/possible percutaneous tendoachilles lengthening is not reasonable or medically necessary.

- **Per ODG 2013 Hardware implant removal (fracture fixation):** Not recommend the routine removal of hardware implanted for fracture fixation, except in the case of broken hardware or persistent pain, after ruling out other causes of pain such as infection and nonunion. Not recommended solely to protect against allergy, carcinogenesis, or metal detection. Although hardware removal is commonly done, it should not be considered a routine procedure. The decision to remove hardware has significant economic implications, including the costs of the procedure as well as possible work time lost for postoperative recovery, and implant removal may be challenging and lead to complications, such as neurovascular injury, refracture, or

recurrence of deformity. Current literature does not support the routine removal of implants to protect against allergy, carcinogenesis, or metal detection. (Busam, 2006) Despite advances in metallurgy, fatigue failure of hardware is common when a fracture fails to heal. Revision procedures can be difficult, usually requiring removal of intact or broken hardware. (Hak, 2008) Following fracture healing, improvement in pain relief and function can be expected after removal of hardware in patients with persistent pain in the region of implanted hardware, after ruling out other causes of pain such as infection and nonunion. (Minkowitz, 2007) The routine removal of orthopaedic fixation devices after fracture healing remains an issue of debate, but implant removal in symptomatic patients is rated to be moderately effective. Many surgeons refuse a routine implant removal policy, and do not believe in clinically significant adverse effects of retained metal implants. Given the frequency of the procedure in orthopaedic departments worldwide, there is an urgent need for a large randomized trial to determine the efficacy and effectiveness of implant removal with regard to patient-centred outcomes. (Hanson, 2008)

- **Per ODG 2013 Adult acquired flatfoot:** Recommend conservative treatment for at least the first 6-8 weeks before consideration of surgery. Originally known as posterior tibial tendon dysfunction or insufficiency, adult-acquired flatfoot deformity encompasses a wide range of deformities. Establishing a diagnosis as early as possible is one of the most important factors in treatment, and prompt early, aggressive nonsurgical management is important. A patient in whom such treatment fails should strongly consider surgical correction to avoid worsening of the deformity. Medical or nonoperative therapy for posterior tibial tendon dysfunction involves rest, immobilization, nonsteroidal anti-inflammatory medication, physical therapy, orthotics, and bracing. There are 4 stages of posterior tibial tendon dysfunction used to dictate treatment: (1) Stage 1 is characterized by peritendinitis and tendon degeneration, but the tendon length remains normal, and this stage presents clinically as pain and swelling along the posterior tibial tendon sheath; (2) In Stage 2, the posterior tibial tendon elongates, and a supple flat foot deformity develops, but, although deformed on weight bearing, the hindfoot and midfoot deformities are passively correctable to neutral; (3) Stage 3 occurs over time as the hindfoot becomes rigid in a valgus position, and the patient develops a rigid flatfoot deformity; & (4) Stage 4 develops as the deltoid ligament becomes incompetent and the talus tilts into valgus within the ankle mortise. The following is a summary of conservative treatments for acquired flatfoot by stage: (1) Stage 1 - NSAIDs and short-leg walking cast or walker boot for 6-8 weeks, full-length semirigid custom molded orthosis, physical therapy; (2) Stage 2 - UCBL orthosis (well fitted anti pronation foot orthotic) or short articulated ankle orthosis; (3) Stage 3 - Molded AFO, double-upright brace, or patellar tendon-bearing brace; & (4) Stage 4 - Molded AFO, double-upright brace, or patellar tendon-bearing brace. The following is a summary of surgical treatments for acquired flatfoot by stage: (1) Stage 1 - Tenosynovectomy, tendon debridement, and tendon

repair of partial tears; (2) Stage 2 - Add Achilles tendon lengthening or gastrocnemius recession in cases of equinus contracture; (3) Stage 3 - Subtalar fusion, Triple arthrodesis; (4) Stage 4 - Tibiotalocalcaneal fusion, Pantalar fusion. See also [Fusion](#) (arthrodesis). During stage 1, pain, rather than deformity, predominates. Cast immobilization is indicated for acute tenosynovitis of the posterior tibial tendon or for patients whose main presenting feature is chronic pain along the tendon sheath. A well-molded short leg walking cast or removable cast boot should be used for 6-8 weeks. Weight bearing is permitted if the patient is able to ambulate without pain. If improvement is noted, the patient then may be placed in custom full-length semirigid orthotics, and the patient may then be referred to physical therapy for stretching of the Achilles tendon and strengthening of the posterior tibial tendon. In stage 2 dysfunction, a painful flexible deformity develops, and more control of hindfoot motion is required. In these cases, a rigid University of California at Berkley (UCBL) orthosis or short articulated ankle-foot orthosis (AFO) is indicated. ([Deland, 2008](#)) ([Lee, 2005](#)) ([Kelly, 2001](#)) See also [Surgery for posterior tibial tendon ruptures](#).

## IRO REVIEWER REPORT - WC

### A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER CLINICAL BASIS USED TO MAKE THE DECISION:

- ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE
- AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES
- DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES
- EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN
- INTERQUAL CRITERIA
- MEDICAL JUDGEMENT, CLINICAL EXPERIENCE, AND EXPERTISE IN ACCORDANCE WITH ACCEPTED MEDICAL STANDARDS
- MERCY CENTER CONSENSUS CONFERENCE GUIDELINES
- MILLIMAN CARE GUIDELINES
- ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES
- PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR
- TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS
- TEXAS TACADA GUIDELINES
- TMF SCREENING CRITERIA MANUAL
- PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION):
- OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE A DESCRIPTION)